

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method, including steps of  
repeatedly reviewing monitoring statistics regarding operation of a file server, said  
steps of reviewing being performed at least as often as a selected time period; and  
processing said monitoring statistics using a diagnostic software module on said  
file server, in response to said steps of repeatedly reviewing;  
wherein said diagnostic software module diagnoses a behavior of said file server  
to determine a specific problem or problems by comparing said monitoring statistics to rules or  
patterns representing abnormal states of operation for said file server; and  
wherein said monitoring statistics include information gathered by at least first  
and second software modules, said first and second software modules being disposed at differing  
protocol levels within an operating system of said file server.

2. (Original) A method as in claim 1, wherein said diagnostic software module  
includes a pattern matching system and a rule-based inference system.

3. (Cancelled)

4. (Original) A method as in claim 1, wherein said monitoring statistics include information gathered by at least one software module within an operating system of said file server.

5. (Original) A method as in claim 1, wherein said selected time period is less than 10 seconds.

6. (Original) A method as in claim 1, wherein said steps of processing are responsive to a usage profile for said file server.

7. (Previously Presented) A method as in claim 6, wherein said usage profile includes information regarding whether use of said file server includes usage as an ISP, a development environment, or a mail server.

Claims 8 to 12 (Cancelled)

13. (Currently Amended) A method, including steps of tracking configuration changes to a file server;  
maintaining monitoring statistics for said file server;

identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes ~~that indicate an error or other failure in said file server;~~

identifying possible errors or other faults for said server associated with relating  
said changes in said monitoring statistics ~~to timing of said configuration changes;~~

determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely; and

identifying, in response to which of said possible errors or other faults is most likely ~~steps of tracking and of relating~~, one or more of said configuration changes.

14. (Original) A method as in claim 13, including steps of suggesting activities to reverse said configuration changes so as to place said file server in an operating state.

15. (Original) A method as in claim 13, wherein said configuration changes include hardware and software configuration changes.

16. (Currently Amended) A file server comprising:

an interface to a network;

mass storage accessible through said interface;

a processor that controls access to said mass storage; and

a memory that stores information including instructions executable by said processor, said instructions including steps of (a) repeatedly reviewing monitoring statistics regarding operation of said file server, said steps of reviewing being performed at least as often as a selected time period, and (b) processing said monitoring statistics using a diagnostic software module on said file server, in response to said steps of repeatedly reviewing;

wherein said diagnostic software module diagnoses a behavior of said file server to determine a specific problem or problems by comparing said monitoring statistics to rules or patterns representing abnormal states of operation for said file server; and

wherein said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server.

17. (Previously Presented) A file server as in claim 16, wherein said diagnostic software module includes a pattern matching system and a rule-based inference system.

18. (Cancelled)

19. (Previously Presented) A file server as in claim 16, wherein said monitoring statistics include information gathered by at least one software module within an operating system of said file server.

20. (Previously Presented) A file server as in claim 16, wherein said selected time period is less than 10 seconds.

21. (Previously Presented) A file server as in claim 16, wherein said steps of processing are responsive to a usage profile for said file server.

22. (Previously Presented) A file server as in claim 21, wherein said usage profile includes information regarding whether use of said file server includes usage as an ISP, a development environment, or a mail server.

Claims 23 to 26 (Cancelled)

27. (Currently Amended) A file server comprising:

- an interface to a network;
- mass storage accessible through said interface;
- a processor that controls access to said mass storage; and
- a memory that stores information including instructions executable by said processor, said instructions including steps of (a) tracking configuration changes to said file server, (b) maintaining monitoring statistics for said file server, (c) identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes that indicate an error or other failure in said file server, (d) (e) identifying possible errors

or other faults for said server associated with relating said changes in said monitoring statistics to timing of said configuration changes, (e) determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely, and (f) (d) identifying, in response to which of said possible errors or other faults is most likely steps of tracking and of relating, one or more of said configuration changes.

28. (Previously Presented) A file server as in claim 27, wherein said instructions further include steps of suggesting activities to reverse said configuration changes so as to place said file server in an operating state.

29. (Previously Presented) A file server as in claim 27, wherein said configuration changes include hardware and software configuration changes.

30. (Currently Amended) A memory storing information including instructions, the instructions executable by a processor to control a file server, the instructions including steps of

repeatedly reviewing monitoring statistics regarding operation of said file server, said steps of reviewing being performed at least as often as a selected time period; and

processing said monitoring statistics using a diagnostic software module on said file server, in response to said steps of repeatedly reviewing;

wherein said diagnostic software module diagnoses a behavior of said file server to determine a specific problem or problems by comparing said monitoring statistics to rules or patterns representing abnormal states of operation for said file server; and

wherein said monitoring statistics include information gathered by at least first and second software modules, said first and second software modules being disposed at differing protocol levels within an operating system of said file server.

31. (Previously Presented) A memory as in claim 30, wherein said diagnostic software module includes a pattern matching system and a rule-based inference system.

32. (Cancelled)

33. (Previously Presented) A memory as in claim 30, wherein said monitoring statistics include information gathered by at least one software module within an operating system of said file server.

34. (Previously Presented) A memory as in claim 30, wherein said selected time period is less than 10 seconds.

35. (Previously Presented) A memory as in claim 30, wherein said steps of processing are responsive to a usage profile for said file server.

36. (Previously Presented) A memory as in claim 35, wherein said usage profile includes information regarding whether use of said file server includes usage as an ISP, a development environment, or a mail server.

Claims 37 to 40 (Cancelled)

41. (Currently Amended) A memory storing information including instructions, the instructions executable by a processor to control a file server, the instructions including steps of

tracking configuration changes to a file server;

maintaining monitoring statistics for said file server;

identifying a relationship between changes in said monitoring statistics for said file server and timing of said configuration changes ~~that indicate an error or other failure in said file server;~~

identifying possible errors or other faults for said server associated with relating said changes in said monitoring statistics ~~to timing of said configuration changes;~~

determining, in response to said relationship between said changes in monitoring statistics and said timing of configuration changes, which of said possible errors or other faults is most likely; and



identifying, in response to which of said possible errors or other faults is most likely steps of tracking and of relating, one or more of said configuration changes.

42. (Previously Presented) A memory as in claim 41, wherein said instructions further include steps of suggesting activities to reverse said configuration changes so as to place said file server in an operating state.

43. (Previously Presented) A memory as in claim 41, wherein said configuration changes include hardware and software configuration changes.

44. (New) A method as in claim 1, further including steps of  
selecting parameters for said differing protocol levels;  
using said diagnostic software module to determine a measure of efficiency for said file server using a higher one of said differing protocol levels; and  
selecting new parameters for a lower one of said differing protocol levels in response to said measure of efficiency.

45. (New) A file server as in claim 16, said instructions further comprising steps of: (c) selecting parameters for said differing protocol levels; (d) using said diagnostic software module to determine a measure of efficiency for said file server using a higher one of said

differing protocol levels; and (e) selecting new parameters for a lower one of said differing protocol levels in response to said measure of efficiency.

46. (New) A memory as in claim 30, the instructions further including steps of:  
selecting parameters for said differing protocol levels;  
using said diagnostic software module to determine a measure of efficiency for  
said file server using a higher one of said differing protocol levels; and  
selecting new parameters for a lower one of said differing protocol levels in  
response to said measure of efficiency.